ORDER NO. HAD8704068C1
A2

Service Manual

Stereo Integrated Amplifier

Amplifier

SU-V76

Color

(K) .... Black Type

Color	Areas
(K) (K)	[M] ..... U.S.A. [MC] ... Canada.

Systems
SC-A610, SC-A620, SC-A630

SPECIFICATIONS (IHF' 78)

■ AMPLIFIER SECTION

Rated minimum sine wave RMS power output
20 Hz~20 kHz both channels driven
0.05% total harmonic distortion
100W per channel (8 ohms)

1 kHz continuous power output both channels driven 0.05% total harmonic distortion	105 W per channel (8 ohms)
Dynamic headroom	1.5 dB (8 ohms)
Total harmonic distortion	
half power at 1 kHz	0.03% (8 ohms)
SMPTE intermodulation distortion	0.05% (8 ohms)
Frequency response	
PHONO	RIAA standard curve ±0.8 dB
TUNER, CD/AUX, TAPE 1, TAPE 2/EXT	10 Hz~80 kHz, −3 dB
Input sensitivity	
PHONO	0.3 mV (2.5 mV, IHF '66)
TUNER, CD/AUX, TAPE 1, TAPE 2/EXT	17 mV (150 mV, IHF '66)
S/N (IHF, A)	
PHONO	74 dB (71 dB, IHF '66)
TUNER, CD/AUX, TAPE 1, TAPE 2/EXT	78 dB (97 dB, IHF '66)
Maximum input voltage	
PHONO	130 mV (140 mV, 1 kHz)
Input impedance	
PHONO	47 kilohms
TUNER, CD/AUX, TAPE 1, TAPE 2/EXT	18 kilohms
Tone controls	
BASS	50 Hz, +10 dB~−10 dB
TREBLE	20 kHz, +10 dB~−10 dB
Super bass	80 Hz, +6 dB
Output voltage	
TAPE 1, 2 REC OUT	150 mV
Low frequency damping factor	45 (8 ohms)
Load impedance	
MAIN or REMOTE	8~16 ohms
MAIN and REMOTE	8~16 ohms

■ GENERAL

Power consumption	350W, 460 VA
Power supply	AC 120V, 60 Hz
Dimensions (W×H×D)	430 × 119 × 240 mm (16-15/16" × 4-11/16" × 9-7/16")
Weight	6.5 kg (14.3 lb.)

Note:
Total harmonic distortion is measured by the digital spectrum analyzer (H.P. 3045 system).

Note:
Total harmonic distortion is measured by the digital spectrum analyzer (H.P. 3045 system).
Specifications are subject to change without notice for further improvement.

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Technics

Matsushita Services Company
50 Meadowland Parkway,
Secaucus, New Jersey 07094

Matsushita Electric
of Canada Limited
5770 Ambler Drive, Mississauga,
Ontario, L4W 2T3

Panasonic Hawaii, Inc.
91-238, Kauhi St. Ewa Beach
P.O. Box 774
Honolulu, Hawaii 96808-0774

Panasonic Sales Company,
Division of Matsushita Electric
of Puerto Rico, Inc.
Calle Rosarito, Edif
D Ceramica Industrial Park
Carolina, Puerto Rico 00630

System Ass'y		Name / System	Amplifier	Tuner	Tape Deck	Turntable	Graphic Equalizer		CD Player (Option)		Speaker System
SC-A610	=	SD-A610	SU-V76	ST-S76	RS-T16	SL-BD26U	—	+	SL-P117 or SL-P118	+	SB-2725
SC-A620		SD-A620	SU-V76	ST-S76	RS-T16	SL-BD26U	SH-8016		SL-P117 or SL-P118		SB-2725
SC-A630		SD-A630	SU-V76	ST-S76	RS-T16	SL-BD26U	—		SL-P117 or SL-P118		SB-2745

■ SAFETY PRECAUTION

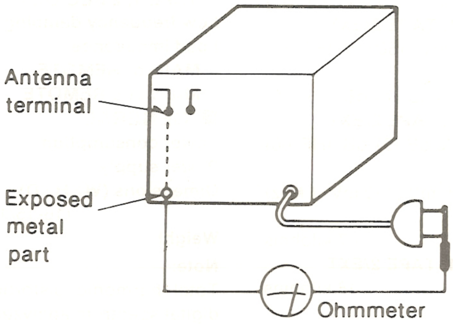
(This "Safety Precaution" is applied only in U.S.A.)

1. Before servicing, unplug the power cord to prevent an electric shock.
2. When replacing parts, use only manufacturer's recommended components for safety.
3. Check the condition of the power cord. Replace if wear or damage is evident.
4. After servicing, be sure to restore the lead dress, insulation barriers, insulation papers, shields, etc.
5. Before returning the serviced equipment to the customer, be sure to make the following insulation resistance test to prevent the customer from being exposed to a shock hazard.

• INSULATION RESISTANCE TEST

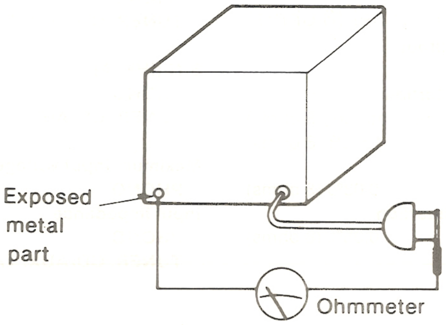
1. Unplug the power cord and short the two prongs of the plug with a jumper wire.
2. Turn on the power switch.
3. Measure the resistance value with ohmmeter between the jumpered AC plug and each exposed metal cabinet part, such as screwheads antenna, control shafts, handle brackets, etc. Equipment with antenna terminals should read between 3MΩ and 5.2MΩ to all exposed parts. (Fig. A) Equipment without antenna terminals should read approximately infinity to all exposed parts. (Fig. B)

Note: Some exposed parts may be isolated from the chassis by design. These will read infinity.



(Fig. A)

Resistance = 3MΩ—5.2MΩ



(Fig. B)

Resistance = Approx ∞

4. If the measurement is outside the specified limits, there is a possibility of a shock hazard. The equipment should be repaired and rechecked before it is returned to the customer.

■ PROTECTION CIRCUITRY

The protection circuitry may have operated if either of the following conditions is noticed:

- No sound is heard when the power is turned on.
- Sound stops during a performance.

The function of this circuitry is to prevent circuitry damage if, for example, the positive and negative speaker connection wires are "shorted", or if speaker systems with an impedance less than the indicated rated impedance of this unit are used.

If this occurs, follow the procedure outlines below:

1. Turn off the power.
2. Determine the cause of the problem and correct it.
3. Turn on the power once again after one minute.

Note

When the protection circuitry functions, the unit will not operate unless the power is first turned off and then on again.

■ BEFORE REPAIR

Disconnect AC power, Discharge both Power Supply Capacitors C703 and C704 through a 10Ω, 5W resistor to ground.
DO NOT SHORT-CIRCUIT DIRECTLY (with a screwdriver blade, for instance), as this may distroy solid state devices.
After repairs are completed, restore power gradually using a variac, to avoid overcurrent.
Current consumption at 120V, 60Hz in NO SIGNAL mode should be 230 ~ 390mA.

LOCATION OF CONTROLS

•Power switch (power)

•Peak-power meters (power level meter)
These meters indicate the peak-power value of the output level to the speaker systems.

•Tape-monitor selectors/indicators (tape mon)

When the indicator for the "tape 1" selector illuminates:
You can play back or monitor the sound from tape deck of this system or to record from tape deck of this system to a second tape deck connected to the "TAPE2/EXT" terminals. Also, for SD-A620 system you can adjust the tone quality by using the graphic equalizer.

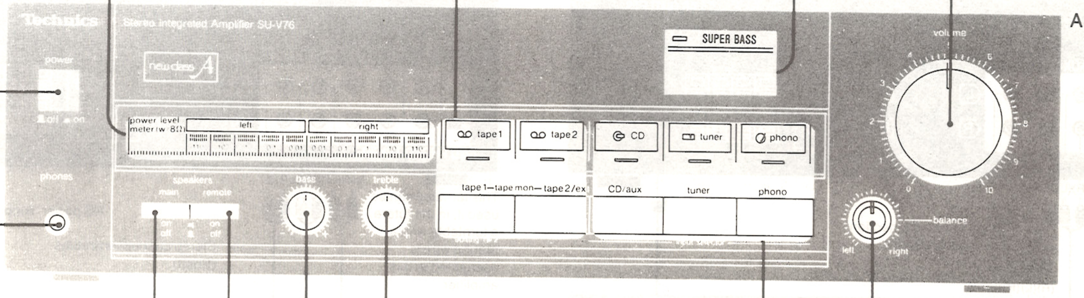
When the indicator for the "tape2/ext" selector illuminates:
You can play back or monitor the sound from a second tape deck, etc. connected to the "TAPE2/EXT" terminals.

When neither indicator illuminates:
You can listen to the sound source selected by one of the input selectors.

Note:
If both indicators illuminate, only the sound from equipment connected to the "TAPE2/EXT" terminals will be heard.

•Super bass switch/indicator (SUPER BASS)
Low frequency sounds are reinforced when this button is pressed.
(The indicator above the button will illuminate.)

•Volume control (volume)
This control is used to adjust the volume level.



Technics
Stereo integrated Amplifier SU-V76
new class A
power
off on
phones
power level meter (W 8Ω)
left
right
speakers
main
remote
bass
treble
tape 1
tape 2
CD
tuner
phono
tape 1—tape mon—tape 2/ext
CD/aux
tuner
phono
SUPER BASS
volume
balance
left
right

Amplifier

•Headphones jack (phones)

•Tone controls (bass/treble)
The bass control is for the low-frequency sound range, and the treble control is for the high-frequency sound range.

•Balance control (balance)
This control is used to adjust left/right volume balance.

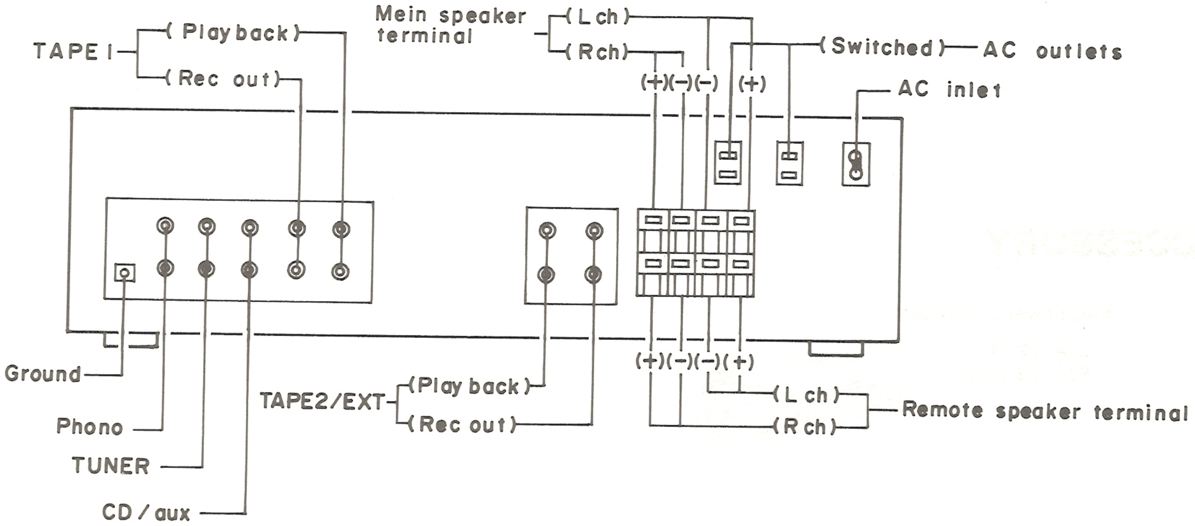
•Speaker selectors (speakers)

main (▮→▄):
When this selector is pressed inward sound can be heard from the speaker systems connected to the "MAIN" terminals.

remote (▮→▄):
When this selector is pressed inward sound can be heard from the speaker systems connected to the "REMOTE" terminals.

Note:
When only one system of speakers is connected, no sound will be heard if both selectors are pressed.

•Input selectors/indicators (input selector)
These selectors are used to select the sound source to be heard, such as a disc, radio broadcast, etc. The corresponding indicator illuminates during operation to indicate the selected sound source.



TAPE I
Play back
Rec out
Mein speaker terminal
L ch
R ch
(+)(−)(−) (+)
Switched
AC outlets
AC inlet
Ground
Phono
TUNER
CD / aux
TAPE2/EXT
Play back
Rec out
(+)(−)(−)(+)
L ch
R ch
Remote speaker terminal

■ HOW TO CONNECTION

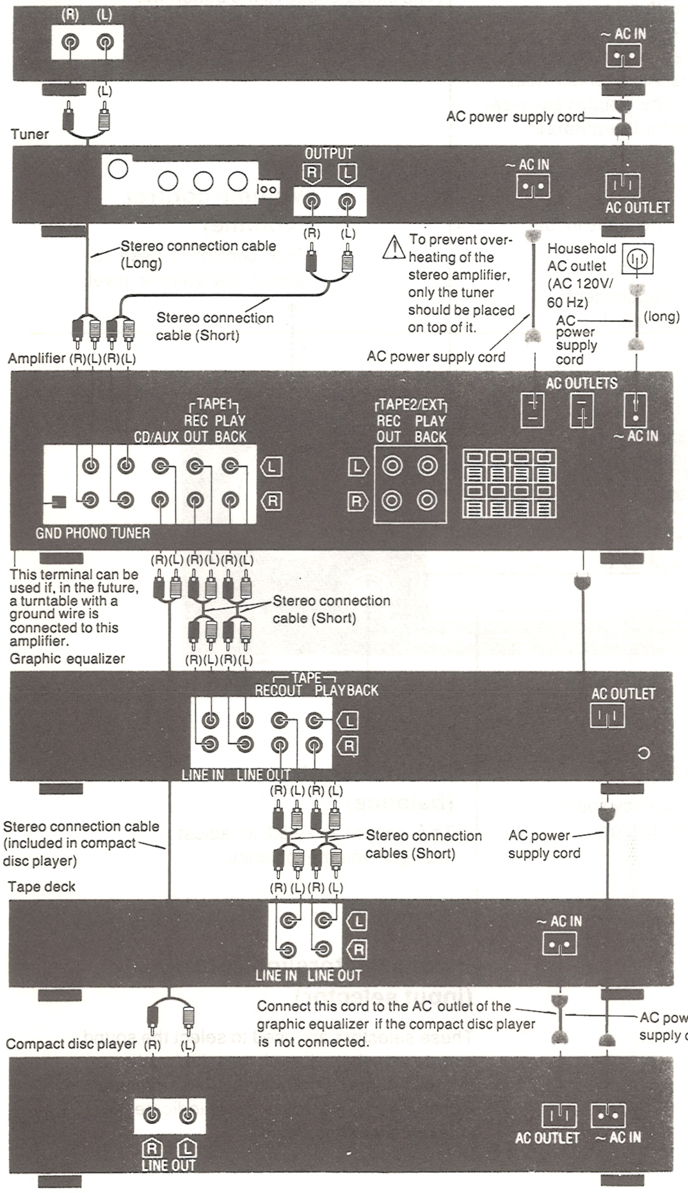
(continued)

Note:
Be sure to use the power cord included with each unit, because some power cords are polarized and some are non-polarized (plug shapes are different).

CAUTION
TO PREVENT ELECTRIC SHOCK MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.

Connection of cables (For SD-A620)

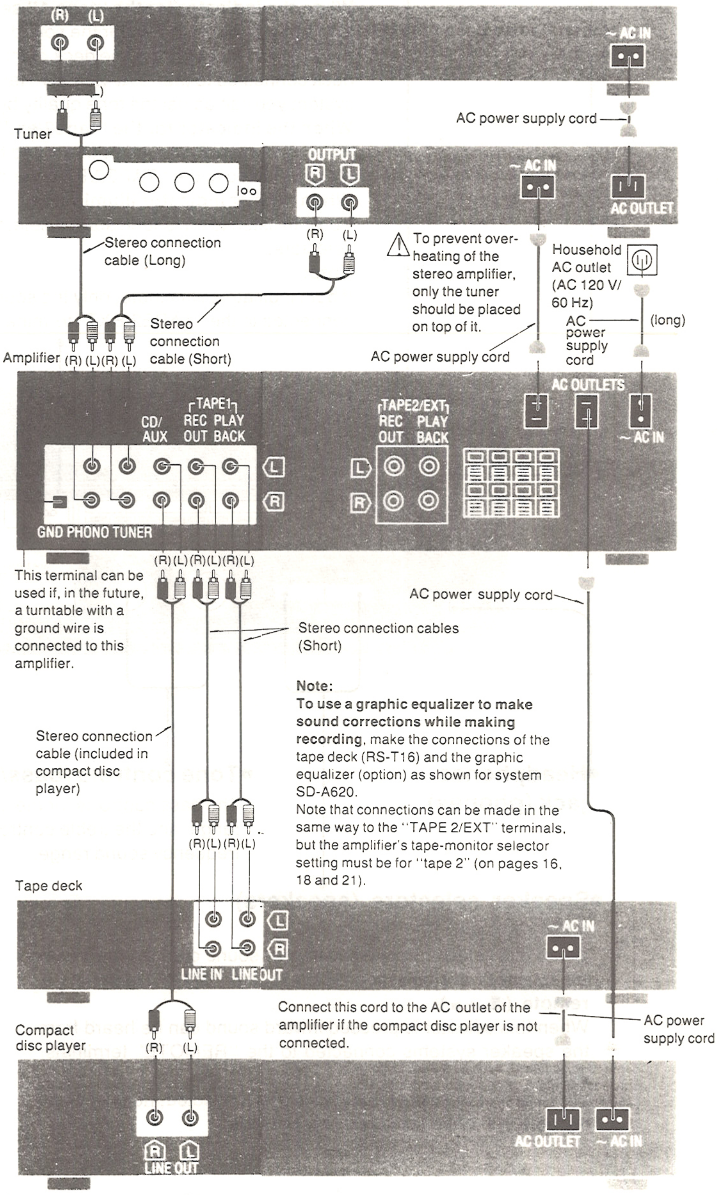
This turntable's ground wire connection is not required for this system. (Ground wire is not included.)



Turntable
(R) (L)
~ AC IN
(L)
AC power supply cord
Tuner
OUTPUT
R L
~ AC IN
AC OUTLET
Stereo connection cable (Long)
(R) (L)
To prevent over-heating of the stereo amplifier, only the tuner should be placed on top of it.
Household AC outlet (AC 120V/ 60 Hz)
AC power supply cord
(long)
Stereo connection cable (Short)
Amplifier (R)(L)(R)(L)
AC power supply cord
AC OUTLETS
TAPE1
REC OUT
PLAY BACK
CD/AUX
TAPE2/EXT
REC OUT
PLAY BACK
L
R
~ AC IN
GND PHONO TUNER
(R)(L)(R)(L)(R)(L)
This terminal can be used if, in the future, a turntable with a ground wire is connected to this amplifier.
Stereo connection cable (Short)
(R)(L)(R)(L)
Graphic equalizer
TAPE
REC OUT
PLAYBACK
AC OUTLET
LINE IN
LINE OUT
(R) (L) (R) (L)
Stereo connection cable (included in compact disc player)
Stereo connection cables (Short)
AC power supply cord
(R) (L) (R) (L)
Tape deck
~ AC IN
LINE IN
LINE OUT
Compact disc player (R) (L)
Connect this cord to the AC outlet of the graphic equalizer if the compact disc player is not connected.
AC power supply cord
R L
LINE OUT
AC OUTLET
~ AC IN

Connection of cables (For SD-A630/A610)

This turntable's ground wire connection is not required for this system. (Ground wire is not included.)



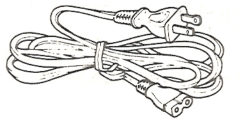
Turntable
(R) (L)
~ AC IN
AC power supply cord
Tuner
OUTPUT
R L
~ AC IN
AC OUTLET
Stereo connection cable (Long)
(R) (L)
To prevent over-heating of the stereo amplifier, only the tuner should be placed on top of it.
Household AC outlet (AC 120 V/ 60 Hz)
AC power supply cord
(long)
Stereo connection cable (Short)
Amplifier (R) (L)(R) (L)
AC power supply cord
AC OUTLETS
CD/ AUX
TAPE1
REC OUT
PLAY BACK
TAPE2/EXT
REC OUT
PLAY BACK
L
R
~ AC IN
GND PHONO TUNER
(R)(L)(R)(L)(R)(L)
This terminal can be used if, in the future, a turntable with a ground wire is connected to this amplifier.
AC power supply cord
Stereo connection cables (Short)
Stereo connection cable (included in compact disc player)
(R)(L)(R)(L)
Tape deck
~ AC IN
LINE IN
LINE OUT
Compact disc player
(R) (L)
Connect this cord to the AC outlet of the amplifier if the compact disc player is not connected.
AC power supply cord
R L
LINE OUT
AC OUTLET
~ AC IN

Note:
To use a graphic equalizer to make sound corrections while making recording, make the connections of the tape deck (RS-T16) and the graphic equalizer (option) as shown for system SD-A620.
Note that connections can be made in the same way to the "TAPE 2/EXT" terminals, but the amplifier's tape-monitor selector setting must be for "tape 2" (on pages 16, 18 and 21).

■ ACCESSORY

- AC power supply cord 1

SJA172–1 [M]
SJA172 [MC]



DISASSEMBLY INSTRUCTIONS

"ATTENTION SERVICER"
SOME CHASSIS COMPONENTS MAY HAVE SHARP EDGES. BE CAREFUL WHEN DISASSEMBLING AND SERVICING.

Ref. No. 1	How to remove the front panel.
Procedure 1	

1. Remove the top cabinet.
2. Pull out the 4 knobs (❶ ~ ❹).
3. Remove the 3 screws (❺ ~ ❼).
4. Remove the 4 nuts (❽ ~ ⓫).
5. Remove the connector.

Remove the knob
Wind cellophane tape around the knob and put it the direction of the arrow as shown in Fig. 1.

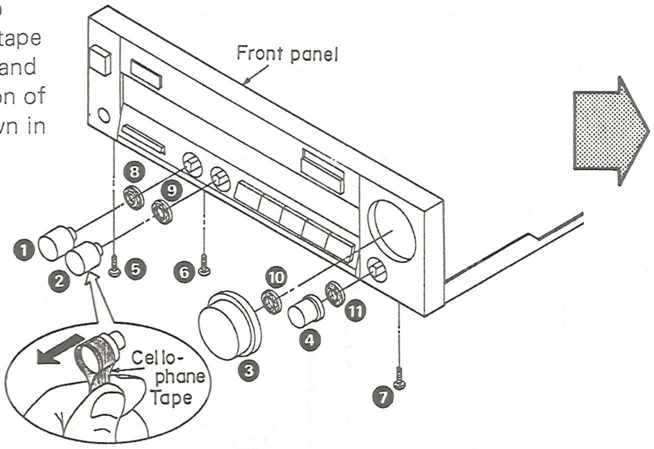

Front panel
❶
❷
❸
❹
❺
❻
❼
❽
❾
❿
⓫
Cello-phane Tape

Fig. 1

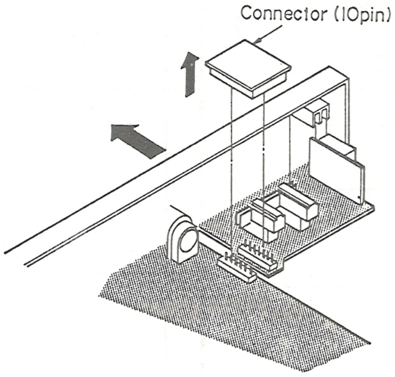

Connector (10pin)

Fig. 2

Ref. No. 2	How to remove the P.C.B.
Procedure 1 →2	

1. Remove the 2 tabs.
2. Remove the volume P.C.B.
3. Remove the 2 screws (❶ , ❷).
4. Remove the super bass P.C.B.
5. Remove the 3 screws (❸ ~ ❺).
6. Remove the selector P.C.B.
7. Remove the 2 screws (❻ , ❼).
8. Remove the power indicator P.C.B.

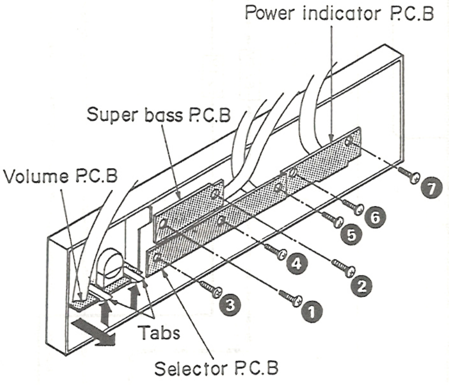

Power indicator P.C.B
Super bass P.C.B
Volume P.C.B
❶
❷
❸
❹
❺
❻
❼
Tabs
Selector P.C.B

Fig. 3

9. Remove the power switch knob.
10. Remove the 1 screw (❽).
11. Remove the power switch P.C.B.

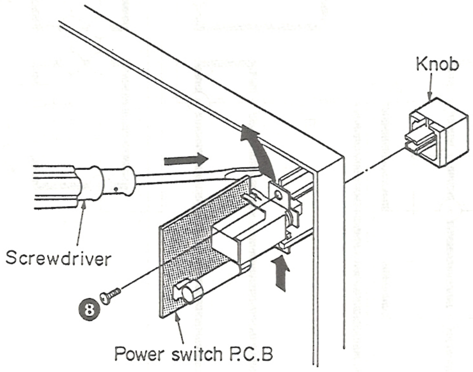

Knob
Screwdriver
❽
Power switch P.C.B

Fig. 4

Remove the knob by pusing it from behind the panel as shown in Fig. 4.

12. Remove the 1 tab.
13. Remove the headphones P.C.B.

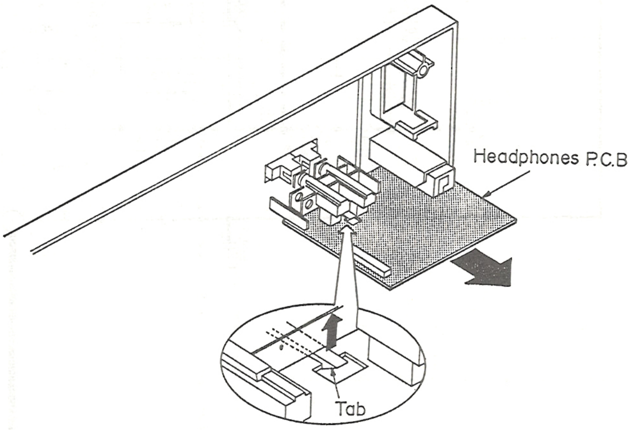

Headphones P.C.B
Tab

Fig. 5

Ref. No. 3	How to remove the main P.C.B.
Procedure 3	1. Remove the 9 screws (❶ ~ ❾). 2. Remove the main P.C.B.

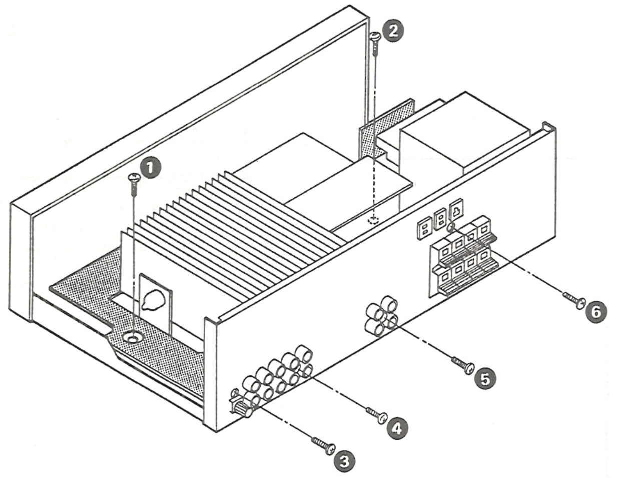


Fig. 6

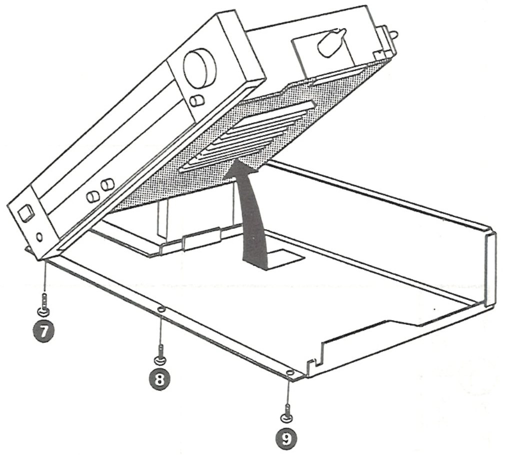


Fig. 7

Ref. No. 4	How to remove the power amplifier IC.
Procedure 3 →4	

1. Unsolder the power IC.
2. Remove the 2 screws (❶, ❷).
3. Remove the sub heat-sink.
4. Remove the 2 screws (❸, ❹).

- When mounting the power IC, apply silicon thermal compound (SZZ0L15 or equivalent) to the rear of the power IC.

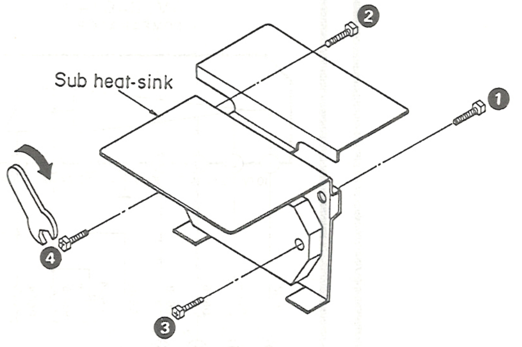

Sub heat-sink
❶
❷
❸
❹

Fig. 8

Ref. No. 5	How to remove the bottom board
Procedure 5	Remove the 11 screws (❶ ~ ⓫).

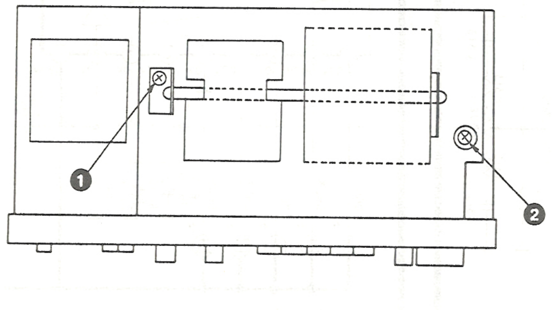


Fig. 9

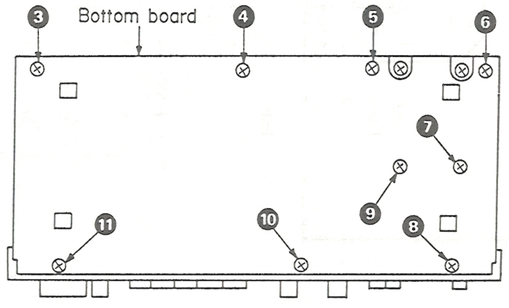
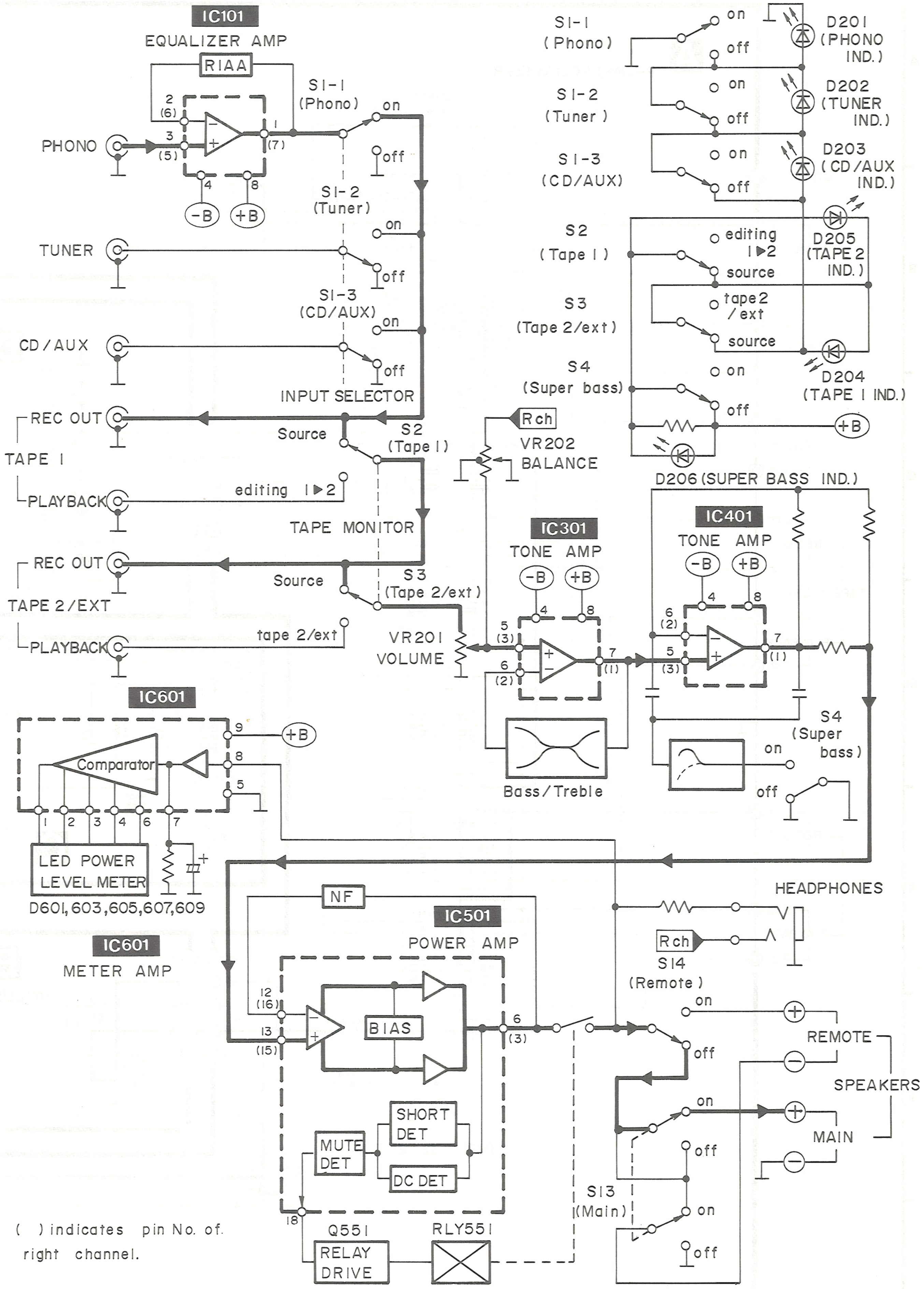

Bottom board
❸
❹
❺
❻
❼
❽
❾
❿
⓫

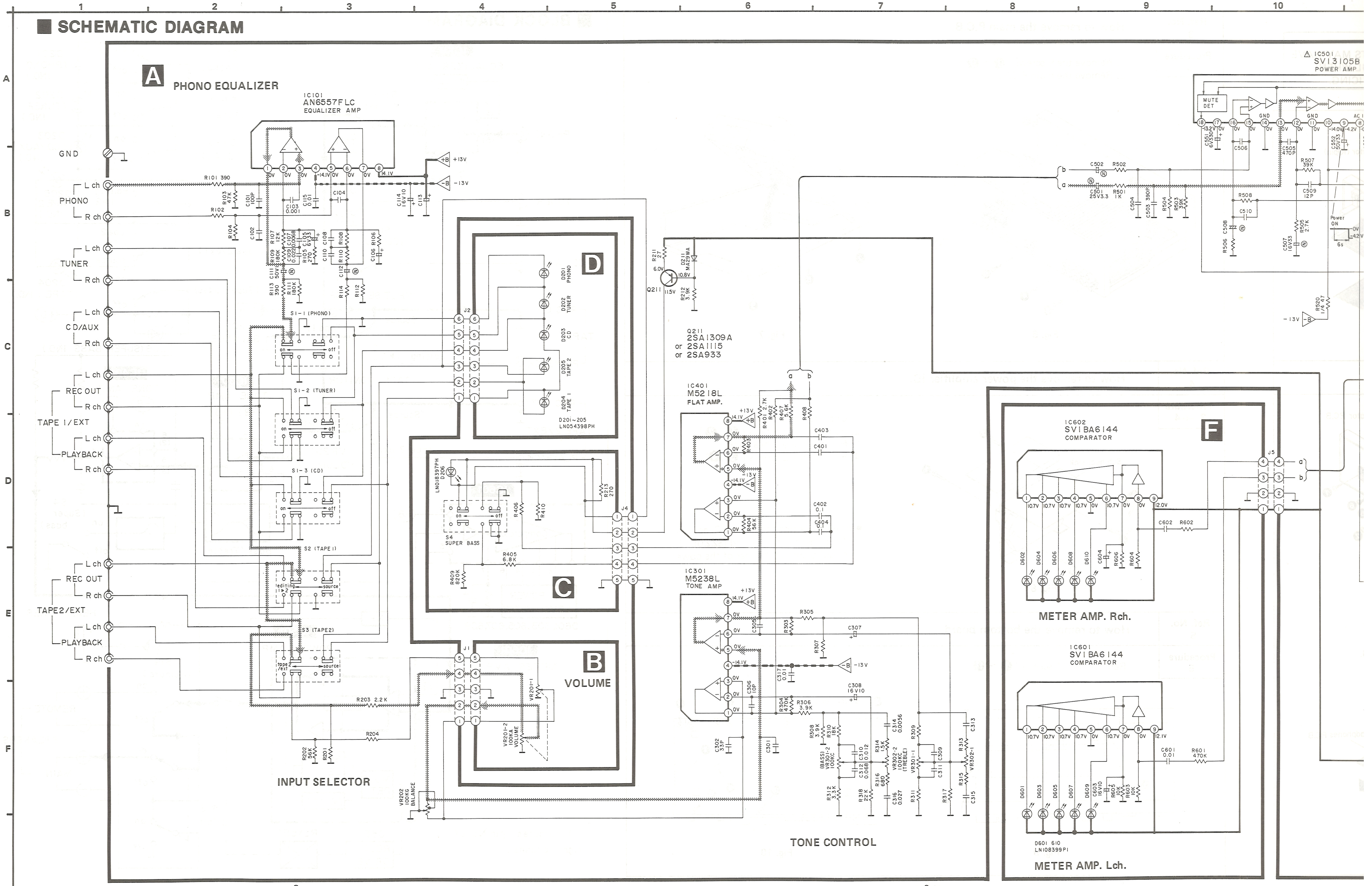
Fig. 10

BLOCK DIAGRAM

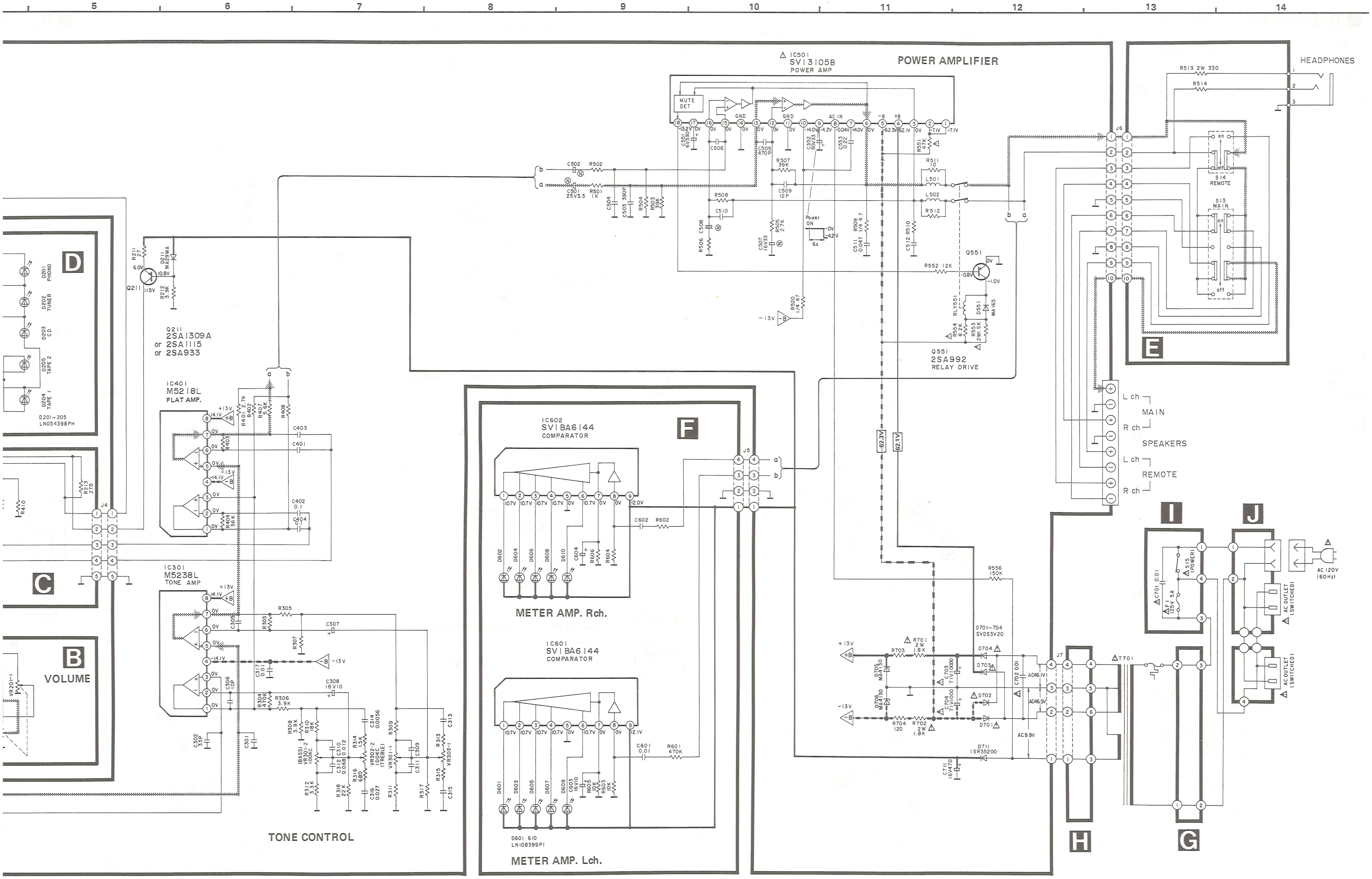

IC101
EQUALIZER AMP
RIAA
PHONO
TUNER
CD / AUX
S1-1 (Phono)
S1-2 (Tuner)
S1-3 (CD/AUX)
on
off
(−B)
(+B)
INPUT SELECTOR
REC OUT
TAPE I
PLAYBACK
Source
editing I ▶ 2
S2 (Tape I)
TAPE MONITOR
REC OUT
TAPE 2 / EXT
PLAYBACK
Source
tape 2/ext
S3 (Tape 2/ext)
VR201 VOLUME
Rch
VR202 BALANCE
IC301
TONE AMP
Bass / Treble
IC401
TONE AMP
S4 (Super bass)
S1-1 (Phono)
S1-2 (Tuner)
S1-3 (CD/AUX)
S2 (Tape I)
S3 (Tape 2/ext)
S4 (Super bass)
editing I ▶ 2
source
tape 2 / ext
D201 (PHONO IND.)
D202 (TUNER IND.)
D203 (CD / AUX IND.)
D205 (TAPE 2 IND.)
D204 (TAPE I IND.)
D206 (SUPER BASS IND.)
IC601
Comparator
LED POWER LEVEL METER
D601, 603, 605, 607, 609
IC601
METER AMP
NF
IC501
POWER AMP
BIAS
SHORT DET
MUTE DET
DC DET
Q551
RELAY DRIVE
RLY551
HEADPHONES
Rch
S14 (Remote)
S13 (Main)
REMOTE
MAIN
SPEAKERS

( ) indicates pin No. of right channel.

SCHEMATIC DIAGRAM



A
PHONO EQUALIZER
IC101
AN6557FLC
EQUALIZER AMP
GND
PHONO
L ch
R ch
TUNER
CD/AUX
REC OUT
TAPE 1/EXT
PLAYBACK
TAPE2/EXT
R101 390
R102
R103 47K
R104
C101 100P
C102
C103 0.001
C104
C115 0.01
C114 16V10
C113
+B +13V
-B -13V
R107 12K
R109 180K
R105 270
C105 6V33
R108
R110
R106
C106
R111 180K
R113 390
C111 50V1
R114
R112
C112
S1-1 (PHONO)
S1-2 (TUNER)
S1-3 (CD)
S2 (TAPE1)
S3 (TAPE2)
on
off
editing
source
tape/ext
R203 2.2K
R204
R202 56K
R201
INPUT SELECTOR
J1
J2
J4
J5
D
D201 PHONO
D202 TUNER
D203 CD
D205 TAPE 2
D204 TAPE 1
D201~205 LN054398PH
C
LN01839 7PH D206
S4 SUPER BASS
R406
R410
R213 270
R405 6.8K
R409 820K
B
VOLUME
VR201-1
VR201-2 100KA VOLUME
VR202 100KG BALANCE
R211 27
D211 MA29WA
Q211
R212 3.9K
6.0V
10.8V
11.5V
Q211
2SA1309A
or 2SA1115
or 2SA933
IC401
M5218L
FLAT AMP.
R401 2.7K
R402
R403
R404 56K
R407 5.6K
R408
C401
C402 0.1
C403
C404
IC301
M5238L
TONE AMP
R303
R304 470K
R305
R306 3.9K
R307
R308 3.9K
R309
R310 18K
R311
R312 3.3K
R313
R314 15K
R315
R316 680
R317
R318 22K
C301
C302 33P
C305
C306 10P
C307
C308 16V10
C309
C310 0.012
C311
C312 0.068
C313
C314 0.0056
C315
C316 0.027
C317 0.01
VR301-1
VR301-2 100KC (BASS)
VR302-1
VR302-2 100KC (TREBLE)
TONE CONTROL
14.1V
0V
-14.1V
F
IC602
SV1BA6144
COMPARATOR
METER AMP. Rch.
IC601
SV1BA6144
COMPARATOR
METER AMP. Lch.
10.7V
12.0V
12.1V
C601 0.01
R601 470K
C602
R602
C603 16V10
C604
R603
R604
R605
R606
D601
D602
D603
D604
D605
D606
D607
D608
D609
D610
D601 610 LN108399PI
IC501
SV13105B
POWER AMP
MUTE DET
GND
C501 25V3.3
C502
C503 390P
C504
C505 470P
C506
C507 16V33
C508
C509 12P
C510
C551 6V330
C552 50V33
R501 1K
R502
R503 33K
R504
R505 2.7K
R506
R507 39K
R508
R520 1/4 47
Power ON
6s
-13.2V
-14.0V
-4.2V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POWER AMPLIFIER
IC501
SV13105B
POWER AMP
MUTE DET
GND
AC IN
HEADPHONES
R513 2W 330
R514
J6
S14
REMOTE
S13
MAIN
on
off
D
D201 PHONO
D202 TUNER
D203 CD
D205 TAPE 2
D204 TAPE 1
D201~205
LN054398PH
Q211
2SA1309A
or 2SA1115
or 2SA933
R211 27
D211 MA29WA
R212 3.9K
IC401
M5218L
FLAT AMP.
IC301
M5238L
TONE AMP
C
B
VOLUME
R213 270
R410
J4
TONE CONTROL
(BASS) VR301-2 100KC
(TREBLE) VR302-2 100KC
VR301-1
VR302-1
F
IC602
SV1BA6144
COMPARATOR
IC601
SV1BA6144
COMPARATOR
METER AMP. Rch.
METER AMP. Lch.
D601 610
LN108399P1
J5
Q551
2SA992
RELAY DRIVE
R552 12K
RLY551
D551 MA165
L501
L502
R511 10
R512
Power ON
6s
-62.3V
62.1V
E
L ch
MAIN
R ch
SPEAKERS
L ch
REMOTE
R ch
I
J
C701 0.01
F1 125V 5A
S15 (POWER)
AC 120V (60Hz)
AC OUTLET (SWITCHED)
AC OUTLET (SWITCHED)
R556 150K
D701~704 SVDS3V20
R701 2W 1.8K
R702 2W 1.8K
R703
R704 120
C703 71V10000
C704 71V10000
D705 MA4130
D706 MA4130
+13V
-13V
J7
T701
D711 1SR35200
C711 16V470
AC46.1V
AC46.5V
AC9.9V
H
G

Notes:

1. S1-1 ∼ S1-3 : Input selector in "Tuner" position.
   S1-1 : phono
   S1-2 : tuner
   S1-3 : CD/aux
2. S2 : Tape monitor selector "Tape" switch.
3. S3 : Tape monitor selector, "Tape 2/ext" switch.
4. S4 : Super bass switch in "off" position.
5. S13 : Main speakers switch in "on" position.
6. S14 : Remote speakers switch in "off" position.
7. S15 : Power source switch in "on" position.
8. Indicated voltage values are the standard values for the unit measured by the DC electronic circuit tester (high-impedance) with the chassis taken as standard.
   Therefore, there may exist some errors in the voltage values, depending on the internal impedance of the DC circuit tester.
   Measurement condition:
   Input selector – phono (no signal)
   Volume – Minimum
   Loudness – off
9. ─▭─ Positive (+B) voltage lines
10. -▭- Negative (–B) voltage lines
11. ⇛ Signal lines (L channel)
12. Important safety notice:
    Components identified by ⚠ mark have special, characteristics important for safety.
    When replacing any of these components, use only manufacturer's specified parts.

*** Caution !**

IC and LSI are sensitive to static electricity.
Secondary trouble can be prevented by taking during repair.

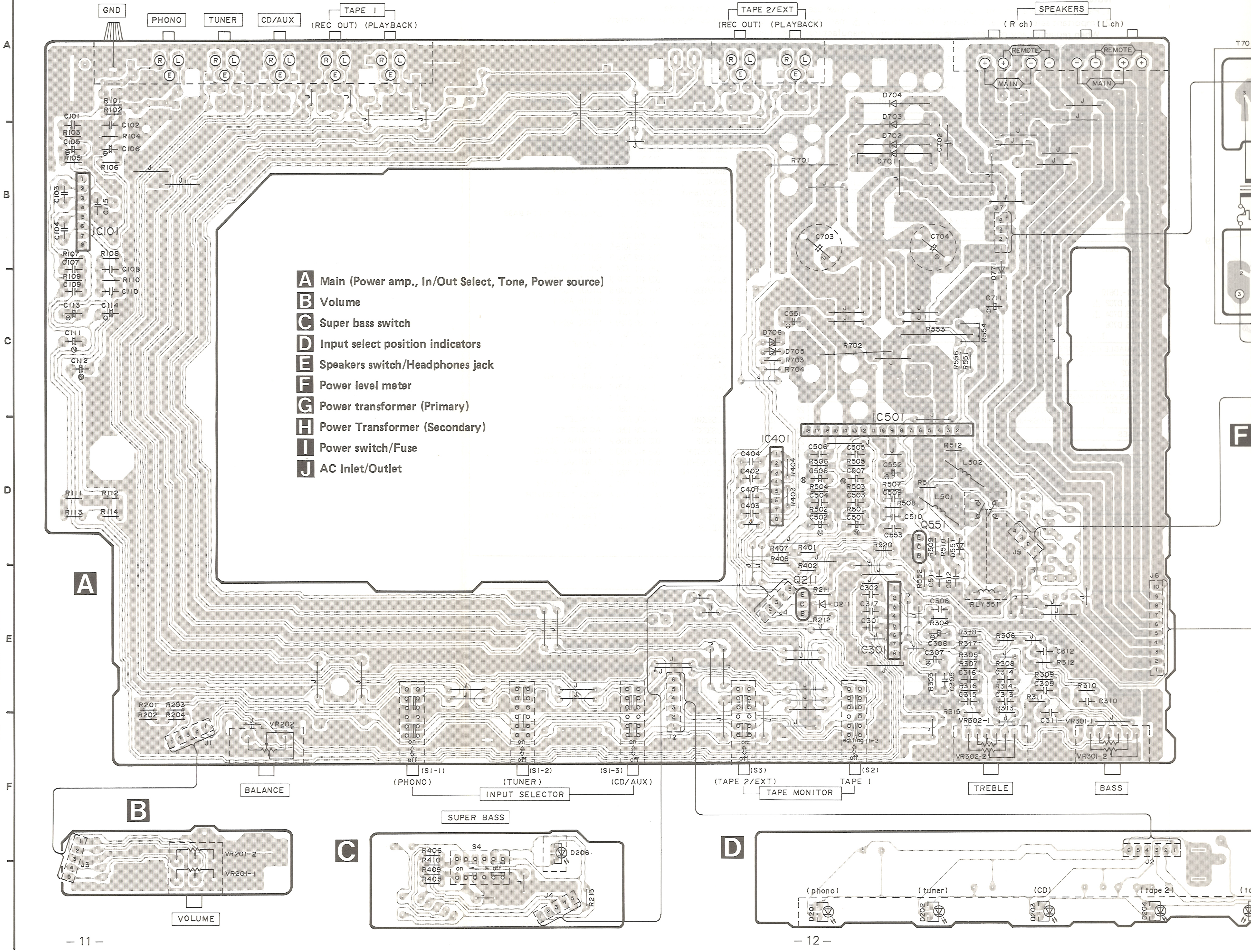
- * Cover the parts boxes made of plastics with aluminum foil.
- * Ground the soldering iron.
- * Put a conductive mat on the work table.
- * Do not touch the legs of IC or LSI with the fingers directly.

FUSE CAUTION

This symbol located near the fuse indicates that the fuse used is fast operating type. For continued protection against fire hazard, replace with same type fuse. For fuse rating, refer to the marting adjacent to the symbol.

Ce symbol indique que le fusible utilisé est à rapide. Pour une protection permanente, n' utiliser que des fusibles de même type. Ce dernler est indiqué là qù le présent symbol est apposé.

CIRCUIT BOARDS AND WIRING CONNECTION DIAGRAM



- **A** Main (Power amp., In/Out Select, Tone, Power source)
- **B** Volume
- **C** Super bass switch
- **D** Input select position indicators
- **E** Speakers switch/Headphones jack
- **F** Power level meter
- **G** Power transformer (Primary)
- **H** Power Transformer (Secondary)
- **I** Power switch/Fuse
- **J** AC Inlet/Outlet

1
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3
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5
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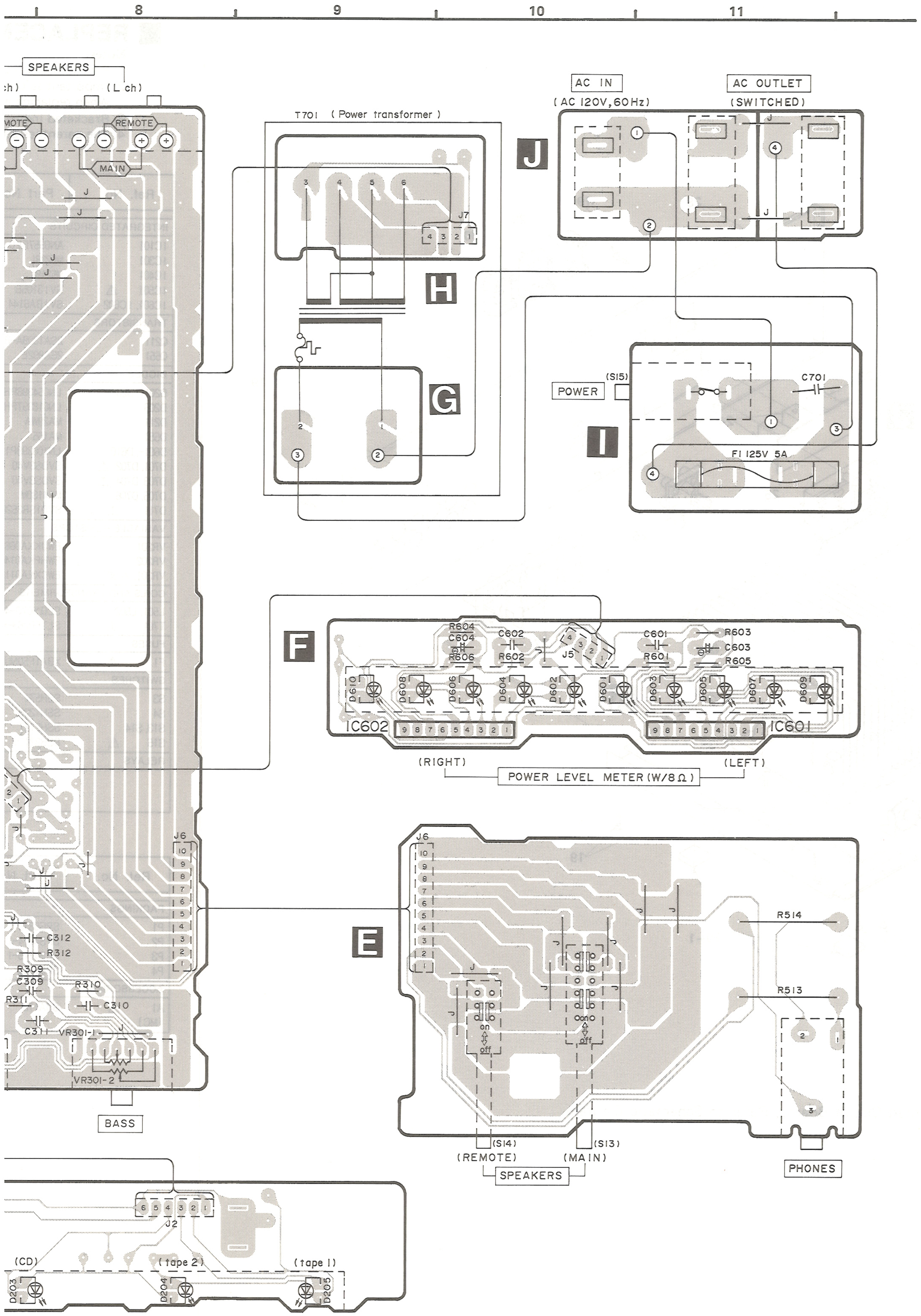
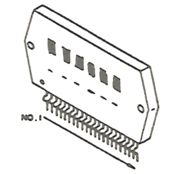
7
8
A
B
C
D
E
F
GND
PHONO
TUNER
CD/AUX
TAPE 1
(REC OUT)
(PLAYBACK)
TAPE 2/EXT
(REC OUT)
(PLAYBACK)
SPEAKERS
(R ch)
(L ch)
REMOTE
MAIN
T70
IC101
IC401
IC501
IC301
Q551
Q211
RLY551
L501
L502
C703
C704
D701
D702
D703
D704
J1
J2
J3
J4
J5
J6
VR202
BALANCE
(S1-1)
(S1-2)
(S1-3)
(PHONO)
(TUNER)
(CD/AUX)
INPUT SELECTOR
(S3)
(S2)
(TAPE 2/EXT)
TAPE 1
TAPE MONITOR
editing
on
off
VR302-1
VR302-2
VR301-1
VR301-2
TREBLE
BASS
SUPER BASS
VR201-1
VR201-2
VOLUME
S4
on
off
D206
R406
R410
R409
R405
R215
(phono)
(tuner)
(CD)
(tape 2)
D201
D202
D203
D204
F

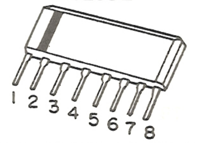

8
9
10
11
SPEAKERS
(L ch)
REMOTE
MAIN
T701 (Power transformer)
J7
AC IN
(AC 120V,60Hz)
AC OUTLET
(SWITCHED)
J
H
G
I
POWER
(S15)
C701
F1 125V 5A
F
R604
C604
R606
C602
R602
J5
C601
R601
R603
C603
R605
D610
D608
D606
D604
D602
D601
D603
D605
D607
D609
IC602
IC601
(RIGHT)
(LEFT)
POWER LEVEL METER (W/8Ω)
E
J6
R514
R513
(S14)
(S13)
(REMOTE)
(MAIN)
SPEAKERS
PHONES
C312
R312
R309
C309
R310
C310
R311
C311
VR301-1
VR301-2
BASS
J2
(CD)
(tape 2)
(tape 1)
D203
D204
D205

● Terminal guide of transistors, diodes and IC's

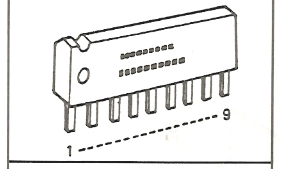
SVI3105B 18pin



AN6557FLC
M5218L
M5238L



SVIBA6144



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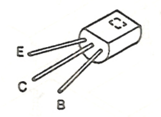

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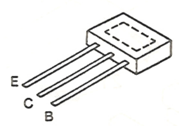
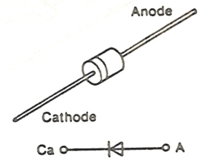
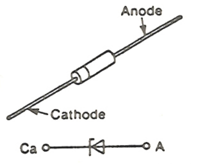


SVD1SR35200A
MA165
MA29WA
SVDS3V20


Anode
Cathode
Ca
A

MA4130M


Anode
Cathode
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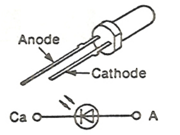
LN108399P
LN018397PH
LN054398PH1


Anode
Cathode
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■ RESISTORS & CAPACITORS

Notes: * Important safety notice:
Components identified by ⚠ mark have special characteristics important for safety. When replacing any of these components use only manufacturer's specified parts.
* Bracketed indications in Ref. No. columns specify the area.
Parts without these indications can be used for all areas.

Numbering System of Resistor

Example

ERD	25	F	J	102
Type	Wattage	Shape	Tolerance	Value (10)x10^2ohms

ERX	2	AN	J	471
Type	Wattage	Shape	Tolerance	Value (47)x10^1ohms

Numbering System of Capacitor

Example

ECKD	1H	102	Z	F
Type	Voltage	Value (10x10^2)x10^{-6} microfarad	Tolerance	Peculiarity

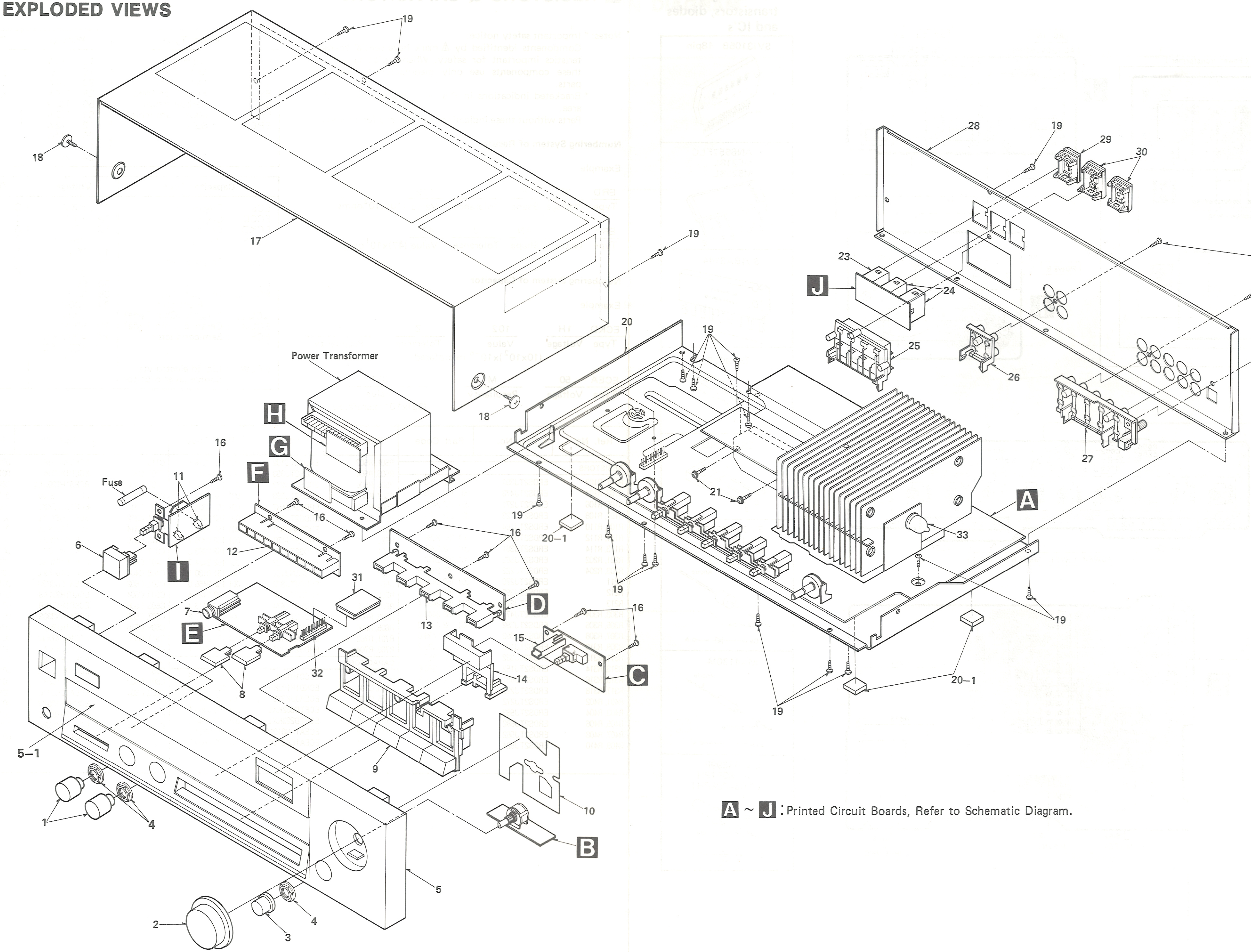
ECEA	50	M	331
Type	Voltage	Peculiarity	Value (33)x10^1 microfarad

Resistor Type	Wattage	Tolerance
ERD : Carbon	10 : 1/8W	F : ±1%
ERG : Metal Oxide	18 : 1/8W	G : ±2%
ERX : Metal Film	S2 : 1/4W	J : ±5%
ERQ : Fuse Type Metal	2F : 1/4W	K : ±10%
ERD [ ] L : Carbon (chip)	50 : 1/2W	
ERO [ ] K : Metal Film (chip)	S1 : 1/2W	
ERC : Solid	12 : 1/2W	
	25 : 1/4W	
	1A : 1W	
	2A : 2W	

Capacitor Type	Voltage	Tolerance
ECE : Electrolytic	0J : 6.3V	C : ±0.25pF
ECCD : Ceramic	1A : 10V	D : ±0.5pF
ECKD : Ceramic	1C : 16V	G : ±2%
ECQM : Polyester	1E : 25V	J : ±5%
	1V : 35V	K : ±10%
ECQP : Polyproylene	1H : 50V	M : ±20%
	1J : 63V	Z : +80%
ECG : Ceramic	50 : 50V	−20%
ECEA□□□N: Non Polar	05 : 50V	P : +100%
Electrolytic	2A : 100V	−0%
QCU□ : Ceramic (Chip Type)	1 : 100V	
ECUX : Ceramic (Chip Type)	2H : 500V	
ECF : Semiconductor	KC : 400V AC	
	KC : 125V AC	
	(UL)	
EECW : Liquid electrolyte		
double layer capcitor		

Ref. No.	Part No.	Part Code
RESISTORS		
R101, R102	ERDS2TJ391	001 152 2360 6
R103, R104	ERDS2TJ473	001 152 2363 3
R105, R106	ERDS2TJ271	001 152 2435 4
R107, R108	ERDS2TJ123	001 152 2424 7
R109, R110	ERDS2TJ184	001 152 2588 8
R111, R112	ERDS2TJ184	001 152 2588 8
R113, R114	ERDS2TJ391	001 152 2360 6
R201, R202	ERDS2TJ563	001 152 2446 1
R203, R204	ERDS2TJ222	001 152 2353 5
R211	ERDS2TJ270	001 152 2434 5
R212	ERDS2TJ392	001 152 2439 0
R213	ERDS2TJ271	001 152 2435 4
R303, R304	ERDS2TJ474	001 152 2443 4
R305, R306	ERDS2TJ392	001 152 2439 0
R307, R308	ERDS2TJ392	001 152 2439 0
R309, R310	ERDS2TJ183	001 152 2429 2
R311, R312	ERDS2TJ332	001 152 2357 1
R313, R314	ERDS2TJ152	001 152 2350 8
R315, R316	ERDS2TJ681	001 152 2449 8
R317, R318	ERDS2TJ223	001 152 2432 7
R401, R402	ERDS2TJ272	001 152 2354 4
R403, R404	ERDS2TJ563	001 152 2446 1
R405, R406	ERDS2TJ682	001 152 2365 1
R407, R408	ERDS2TJ562	001 152 2445 2
R409, R410	ERDS2TJ824	001 152 2457 8
R501, R502	ERDS2TJ102	001 152 2346 4
R503, R504	ERDS2TJ393	001 152 2440 7
R505, R506	ERDS2TJ272	001 152 2354 4
R507, R508	ERDS2TJ393	001 152 2440 7
R509, R510	ERD25FJ4R7	001 152 0303 3
R511, R512	ERDS2TJ100	001 152 2420 1
R513, R514	ERG2ANJ331	001 151 0154 3
R520	ERD25FJ470	001 152 0309 7
R551	ERDS2TJ473	001 152 2363 3
R552	ERDS2TJ123	001 152 2424 7
R553 ⚠	ERG2ANJ152	001 151 0130 1
R554	ERDS2TJ822	001 152 2455 0
R556	ERDS2TJ154	001 152 2427 4
R601, R602	ERDS2TJ474	001 152 2443 4
R603, R604	ERDS2TJ103	001 152 2347 3
R605, R606	ERDS2TJ103	001 152 2347 3
R701, R702 ⚠	ERG2ANJ182	001 151 0135 6
R703, R704	ERDS2TJ121	001 152 2349 1
CAPACITORS		
C101, C102	ECCD1H101K	001 103 0341 2
C103, C104	ECKD1H102KB	001 103 1414 8
C105, C106	ECEA0JK330	001 120 0141 1
C107, C108	ECFTD682KXL	001 108 0363 1
C109, C110	ECFTD223KXL	001 108 0342 6
C111, C112	ECEA1HN0101S	001 120 0354 0
C113, C114	ECEA1CKS100	001 120 2600 7
C115	ECKD1H103PF	001 103 1449 7
C301, C302	ECCD1H330K	001 103 0567 6
C305, C306	RCBS1H100JLY	001 103 5564 9
C307, C308	ECEA1CKS100	001 120 2600 7
C309, C310	ECFTD123KXL	001 108 0745 1
C311, C312	ECFTD683KXL	001 108 0346 2
C313, C314	ECFTD562KXL	001 108 0904 4
C315, C316	ECFTD273KXL	001 108 0343 5
C317	ECKD1H103PF	001 103 1449 7
C401, C402	ECFTD104KXL	001 108 0793 3
C403, C404	ECFTD104KXL	001 108 0793 3
C501, C502	ECEA1EN3R3S	001 120 0296 3
C503, C504	ECKD1H391KB	001 103 1544 9
C505, C506	ECKD1H471KB	001 103 1551 0
C507, C508	ECEA1CN330S	001 120 0240 9
C509, C510	RCBS1H120JLY	001 103 5578 3
C511, C512	ECQM1H473JZ	001 106 0810 9
C551	ECEA0JS331	001 120 2975 9
C552	ECEA1HS330	001 120 0383 5
C553	ECQM1H224JZ	001 106 0746 0
C601, C602	ECKD1H103PF	001 103 1449 7
C603, C604	ECEA1CKS100	001 120 2600 7
C701	ECKWNS103ZV	001 103 8209 3
C702	ECKD2H103PE	001 103 1626 8
C703, C704 ⚠	ECES71V103VN	001 120 5525 9
C711 ⚠	ECEA1CU471	001 120 3202 3

EXPLODED VIEWS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Power Transformer
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Fuse
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20–1
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D
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32
14
C
19
20–1
19
5–1
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B
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A ~ J : Printed Circuit Boards, Refer to Schematic Diagram.

REPLACEMENT PARTS LIST

Notes:

1. Part numbers are indicated on most mechanical parts. Please use this part number for parts order.
2. Important safety notice: Components identified by ⚠ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.
3. Bracketed indications in Ref. No. columns specify the area. Parts without these indications can be used for all areas.
4. The parenthesized numbers in the column of description stand for the quantity per set.

Ref. No.	Part No.	Part Code	Description
INTEGRATED CIRCUITS			
IC101	AN6557FLC	001 061 2819 8	I.C., EQ AMP
IC301	M5238L	001 061 3522 8	I.C., TONE AMP
IC401	M5218L	001 060 3798 7	I.C., OPERATION AMP.
IC501 ⚠	SVI3105B	001 061 4021 0	I.C., POWER AMP
IC601, IC602	SVIBA6144	001 060 8320 1	I.C., POWER LEBEL METER
TRANSISTORS			
Q211	2SA1309A-R	001 030 6079 7	TRANSISTOR
Q551	2SA992E	001 030 0513 4	TRANSISTOR
DIODES			
D201-, D205	LN054398PH	001 033 0135 5	DIODE ASS'Y
D206	LN018397PH	001 033 0129 3	DIODE ASS'Y
D211	MA29WA	001 032 7250 0	DIODE
D551	MA165	001 032 0494 0	DIODE
D601-, D610	LN108399P1	001 033 0140 8	DIODE ASS'Y
D701, D702 ⚠	SVDS3V40	001 032 1347 6	RECTIFIER
D703, D704 ⚠	SVDS3V40	001 032 1347 6	RECTIFIER
D705, D706	MA4130M	001 032 4960 9	DIODE
D711 ⚠	SVD1SR35200A	001 032 3951 4	RECTIFIER
VARIABLE RESISTORS			
VR201	EWJKXA066A15		V.R., MAIN
VR202	EWHFKA014G15	001 174 9116 6	V.R. BALANCE
VR301, VR302	EWCXEA011C15	001 174 7737 1	V.R. TONE
COILS AND TRANSFORMERS			
L501, L502	SLQY07G-4A	001 211 4090 3	CHOKE COIL
T701 ⚠	SLT5P268-KK	001 202 8992 9	POWER TRANSFORMER
FUSES			
F1 ⚠	XBA1F50NU14	002 380 0324 8	FUSE, 5A 125V
SWITCHES			
S3	SSH579	003 435 6326 2	PUSH SWITCH
S4	SSH1228	003 435 6328 0	PUSH SWITCH
S13, S14	SSH2127	003 435 6328 0	PUSH SWITCH
S15 ⚠	ESB8249V	003 435 5877 0	POWER SWITCH
RELAYS			
RY551	SSY126	003 450 2686 0	RELAY
CABINET AND CHASSIS			
1	SBN1032-4	016 700 1857 9	KNOB, BASS,TREB
2	SBN1225	016 700 1981 6	KNOB, VOL
3	SBN1226	016 700 1980 7	KNOB, BARANCE
4	SNE4021	005 507 0372 5	NUT
5	SGYUV76-KM	016 840 7670 3	FRONT PANEL
5-1	SGU556A	016 842 1630 5	FILTER
5-2	SGX7904A	016 846 3787 7	ORNAMENT, SUPER BASS
6	SBC666-1	016 702 6076 0	BUTTON
7	SJJ134B	003 400 7050 0	JACK, HEADPHONES
8	SBC938	016 702 7019 5	BUTTON
9	SBC940	016 702 7031 9	BUTTON
10	SMC6438	016 601 0624 0	SHIELD COVER
11	SJT391	003 410 7242 8	LUG TERMINAL
12	LN108399P1	001 033 0140 8	DIODE ASS'Y
13	LN054398PH	001 033 0135 5	DIODE ASS'Y
14	SBC939	016 702 7030 0	BUTTON
15	LN018397PH	001 033 0129 3	DIODE ASS'Y
16	XTB3+8G	005 501 2607 7	SCREW
17	SKC1950K991	016 800 2611 8	CABINET
18	SNE2129-1	005 500 7938 6	SCREW
19	XTB3+8JFZ1	005 501 2523 0	SCREW
20	SKUUV76-KM	016 802 2186 4	BOTTOM BOARD
20-1	SKL293	016 828 0269 8	RUBBER
21	SNE2118	005 500 5011 2	SCREW
22	XTW3+8T	005 501 1358 9	SCREW
23 ⚠	SJS9234B	003 400 5922 5	AC INLET
24 ⚠	SJS9233B	003 402 1993 6	AC OUTLET
25	SJF5812	003 410 8155 2	TERMINAL PLATE
26	SJF3057NK	003 410 8123 0	TERMINAL BOARD
27	SJF3062-1NK	003 410 8154 3	TERMINAL PLATE
28	SGPUV76-KM	016 840 7660 5	REAR PANEL
29	SJS9234A	003 400 5921 6	AC INLET COVER
30	SJS9233A	003 410 6004 4	AC OUTLET COVER
31	SJS54	003 400 7801 5	SOCKET(10P)
32	SJT3041	003 410 8161 4	TERMINAL PLATE
33	SXE1156	016 630 1846 1	HEAT SINK

Ref. No.	Part No.	Part Code	Description
PACKINGS			
P1	SPG5876	016 971 5022 7	PACKING CASE
P2	SPS4714-1	016 977 3297 0	PAD
P3	SPS4715-1	016 977 3296 1	PAD
P4	SPP723	016 978 0207 5	PROTECTION COVER
ACCESSORIES			
A1 ⚠ (MC)	SJA172	003 490 4069 7	POWER CORD
A1 ⚠ (M)	SJA172-1	003 490 4930 5	POWER CORD
A2 (MC)	SPB1155	016 918 0632 8	HEADHONES
A3 (M)	SQF12869	016 983 5111 1	INSTRUCTION BOOK
A3 (MC)	SQF12870	016 983 5152 2	INSTRUCTION BOOK

Printed in Japan
870304020Ⓚ YY/TS

ORDER NO. HAD8707220S4

Service Manual

Supplement

Amplifier

Stereo Integrated Amplifier

SU-V76

Color

(K) ....Black Type

Area

Color	Area
(K) (K)	(PA) ....Far East PX. (PE) ....European Military.

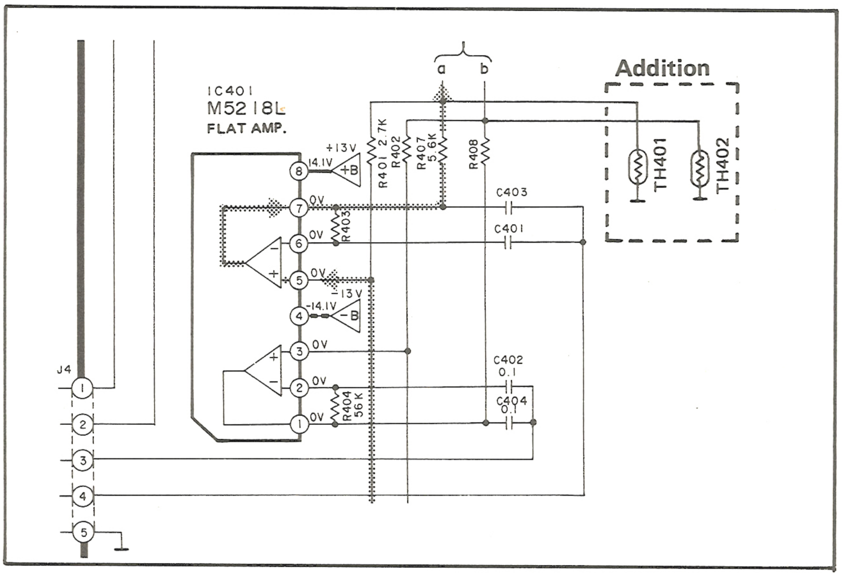
Please use this supplement manual together with the service manual for Model No. SU-V76, Order No. HAD8706174A4.

Notes:

- * The circuit of SU-V76 has been changed for the improvement of performance.
- * This supplement should be filed with the service manual for Model No. SU-V76, Order No. HAD8706174A4.

CHANGES

SCHEMATIC DIAGRAM



a
b
Addition
IC401
M5218L
FLAT AMP.
+13V
14.1V
+B
R401 2.7K
R402
R407 5.6K
R408
TH401
TH402
C403
C401
0V
R403
-13V
-14.1V
-B
C402 0.1
C404 0.1
R404 56K
J4
1
2
3
4
5
6
7
8

REPLACEMENT PARTS LIST

Ref No.	Change of Part No.		Part Name & Description	Remarks
	OLD →	NEW		
T701 ⚠	SLT5P279	**SLT5P282**	Power-transformer, Power Source	Change
TH401, 402	–––––	**RRT104**	Thermistor, Temperature Detector	Addition

Technics

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ORDER NO. HAD8706174A4

Service Manual

Amplifier

Stereo Integrated Amplifier

SU-V76

Color

(K) ....Black Type

Area

Color	Area
(K) (K)	(PA) ....Far East PX. (PE) ....European Military.

Please use this manual together with the service manual for Model No.SU-V76, Order No.HAD8704068C1.

CHANGES

■ REPLACEMENT PARTS LIST

Note: Mentioned in this parts list are only those different from Model No.SU-V76 (Black Type) for the destination (M) area.
Important safety notice : Components identified by ⚠ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.

Ref.No.	Change of Part No.		Part Name & Description	Remarks
	SU-V76 (M) →	**SU-V76 (PA,PE)**		
INTEGRATED CIRCUITS				
IC101	AN6557FLC	**M5218L**	Operation Amplifier	Change
TRANSISTORS				
Q761	------------	**2SC3311A**	Switching	Addition
Q762	------------	**2SA1309A-R**	Switching	Addition
DIODES				
D761	------------	**MA165**	Switching	Addition
D762	------------	**MA4082M**	8.2V , Zener	Addition
TRANSFORMER				
T701 ⚠	SLT5P268-KK	**SLT5P279**	Power Source	Change
FUSES				
F1 ⚠	XBA1F50NU14	**XBA2C40TRO**	250V , T4A	Change
F2 ⚠	------------	**XBA2C20TRO**	250V , T2A	Addition
SWITCH				
S16 ⚠	------------	**ESE37263**	Voltage Selector	Addition

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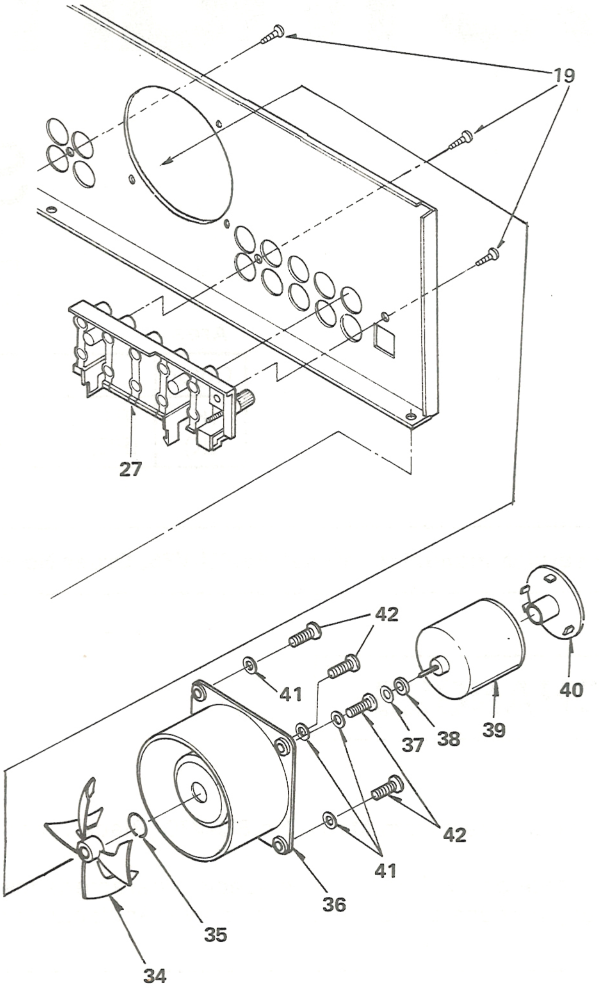
Tokyo 105,Japan

Ref.No.	Change of Part No.		Part Name & Description	Remarks
	SU-V76 (M) →	SU-V76 (PA,PE)		
RESISTORS				
R554	ERDS2TJ822	**ERDS1FUJ472**	Carbon , 1W , 4.7kΩ ,± 5%	Change
R761	------------	**ERDS2TJ223**	Carbon , 1/4W , 22kΩ ,± 5%	Addition
R762	------------	**ERDS2TJ223**	Carbon , 1/4W , 22kΩ ,± 5%	Addition
R763	------------	**ERDS2TJ223**	Carbon , 1/4W , 22kΩ ,± 5%	Addition
R764	------------	**ERDS2TJ223**	Carbon , 1/4W , 22kΩ ,± 5%	Addition
R765	------------	**ERDS2TJ392**	Carbon , 1/4W , 3.9kΩ ,± 5%	Addition
R766	------------	**ERDS2TJ392**	Carbon , 1/4W , 3.9kΩ ,± 5%	Addition
CAPACITORS				
C701	ECKWNS103ZV	**ECKDKC103PF**	Ceramic , 400V ,0.01μF , +100% , -0%	Change
C761	------------	**ECEA1CK100B**	Electrolytic , 16V ,100μF	Addition
CABINET AND CHASSIS				
6	SBC666-1	**SBC666-5**	Button , Power	Change
17	SKC1950K991	**SKC1950K992**	Cabinet	Change
23 ⚠	SJS9234B	**SJS9231-1B**	AC Inlet	Change
24 ⚠	SJS9233B	**SJS9232B**	AC Outlet	Change
28	SGPUV76-KM	**SGP7111-6A**	Rear Panel	Change
29	SJS9234A	**SJS9231A**	AC Inlet Cover	Change
30	SJS9233A	**SJS9232A**	AC Outlet Cover	Change
33	SXE1156	**SXE1163**	Heat Sink	Change
34	------------	**SHE174**	Tool	Addition
35	------------	**SUS271**	Spring	Addition
36	------------	**SMEZ960-KE**	Bracket	Addition
37	------------	**SHW21S40**	Washer	Addition
38	------------	**SDX323**	Wheel	Addition
39	------------	**MMN6C2RKMS**	Motor	Addition
40	------------	**SME97-1**	Angle	Addition
41	------------	**SHG6267**	Rubber	Addition
42	------------	**XTBS3+10JFZ**	Screw	Addition
ACCESSORIES				
A1 ⚠	SJA172-1	**SJA168-1**	AC Cord	Change
A3	SQF12869	**SQF13029**	Instruction Book	Change
A4 ⚠	------------	**SJP9215**	Plug	Addition
PACKING				
P1	SPG5876	**SPG6085**	Carton Box	Change
P2	SPS4714-1	**SPS4751-2**	Pad , Left	Change
P3	SPS4715-1	**SPS4752-2**	Pad , Right	Change

EXPLODED VIEW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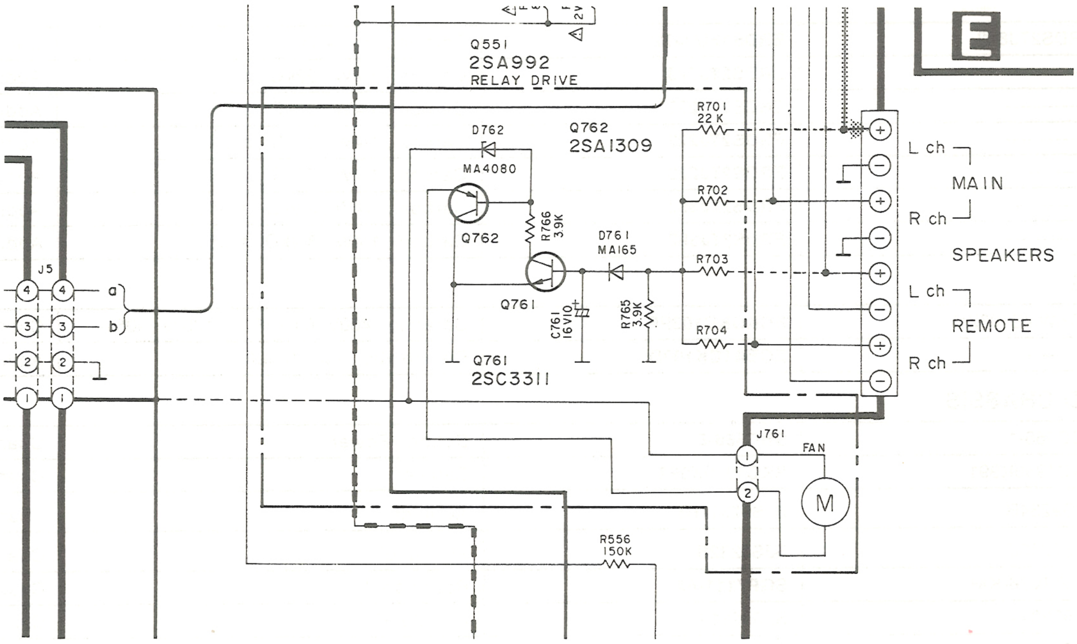
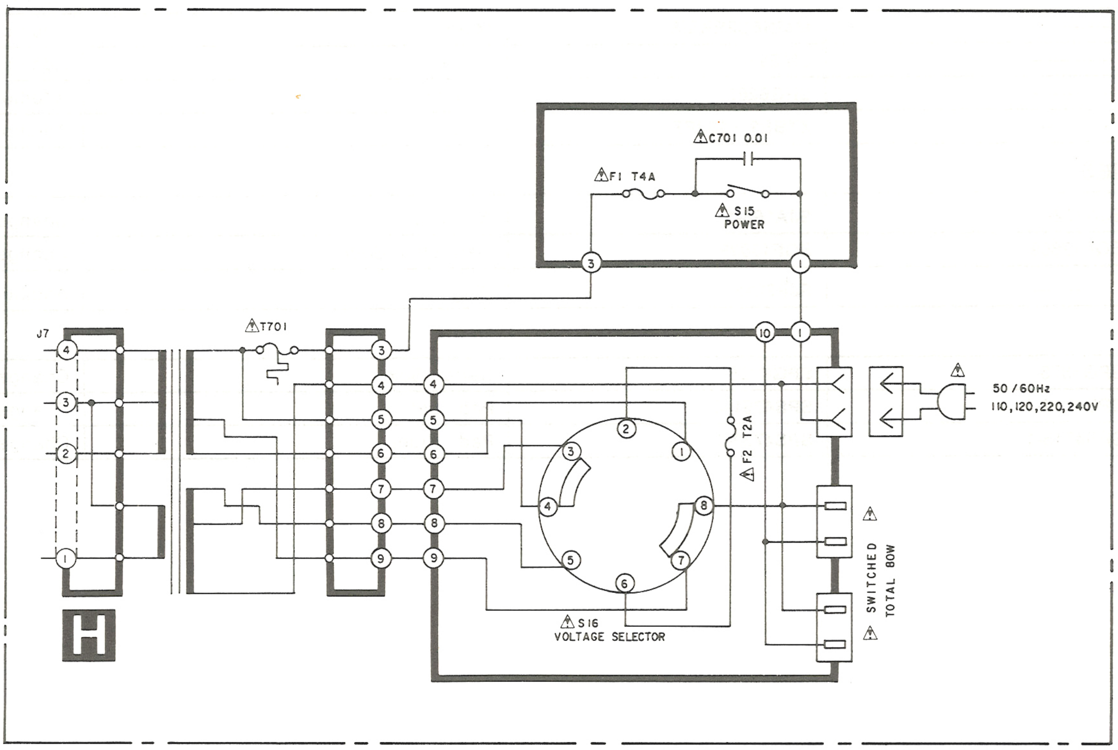
SCHEMATIC DIAGRAM

• Addition of fan circuit



E
Q551
2SA992
RELAY DRIVE
D762
MA4080
Q762
2SA1309
Q762
R766
3.9K
D761
MA165
Q761
C761
16V10
R765
3.9K
Q761
2SC3311
R701
22 K
R702
R703
R704
L ch
R ch
MAIN
SPEAKERS
L ch
R ch
REMOTE
J5
a
b
J761
FAN
M
R556
150K

• Change of power source circuit



C701 0.01
F1 T4A
S15
POWER
J7
T701
F2 T2A
50 / 60Hz
110, 120, 220, 240V
SWITCHED
TOTAL 80W
S16
VOLTAGE SELECTOR
H